## Amendments to the Claims:

A clean version of the entire set of pending claims, including amendments to the claims, is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

- 1. (Canceled)
- 2. (Currently Amended) A method to determine the spatial distribution of magnetic particles in an examination area of an object, of examination with the following steps comprising:
- a) Generation of generating an imaging magnetic field with a spatial distribution of the <u>imaging</u> magnetic field strength such that the <u>area of examination</u> area consists of a first sub-area with lower magnetic field strength and a second sub-area with a higher magnetic field strength,
- b) Change of changing the spatial location of both sub-areas in the area of examination area so that the magnetization of the particles changes locally,
- c) Acquisition of acquiring signals that depend on the magnetization in the area of examination area influenced by this change the changed spatial location of both sub-areas in the examination area, and
- d) Evaluation of evaluating said signals to obtain information about determine the spatial distribution of the signals-magnetic particles in the area of examination area, wherein the magnetic particles before or during the determining of the spatial distribution of the magnetic particles in the examination area are exposed to a varying magnetic field at least some of the time, more particularly periodically or continuously such so as at least to reduce or prevent agglomeration of the magnetic particles.

- 3. (Currently Amended) A method according to claim [[two]]2, characterized in that the wherein a gradient field in the area of examination area has a varying magnetic field superimposed on the imaging magnetic field at least some of the time, more particularly periodically or continuously, more particularly, in at least parts of the first sub-area with lower magnetic field strengths.
- 4. (Currently Amended) A method as claimed in claim [[1]]2, eharacterized in that the wherein a strength of the varying magnetic field is sufficient to cancel out these attractive forces resulting in the clumping or agglomeration between neighboring particles in the area of examination area.
- 5. (Currently Amended) A method as claimed in claim [[1]]2, characterized in that wherein the varying magnetic field is applied, more particularly, at an equal strength in all three spatial components dimensions.
- 6. (Currently Amended) A method as claimed in claim [[1]]2, characterized in that wherein the particles have an average size or expansion of at least 30, more particularly, at least 40 nm.
- 7. (Currently Amended) A method as claimed in claim [[1]]2, characterized in that wherein the varying magnetic field can be a applied, locally restricted, in the area of examination area until the clumping or agglomeration of magnetic particles in this location is at least partially resolved reduced.
- 8. (Currently Amended) A method as claimed in claim [[1]]2, characterized in that a wherein the varying magnetic field with a frequency in the range of approx. 1 kHz to 10 MHz, preferablyapproximately 10 to 500 kHz is used.

- 9. (Currently Amended) A method as claimed in claim [[1]]2, -characterized-in that wherein the field strength of the varying magnetic field is at least two times higher than the field strength of the imaging magnetic field.
- 10. (Currently Amended) A method as claimed in claim [[1]]21, wherein the magnetic particles are monodomain particles and wherein the field strength of the varying magnetic field is at least 30, preferably at least 50 mTesla.
- 11. (Currently Amended) A method as claimed in claim [[1]]2, wherein the magnetic particles comprise a nonmagnetic core covered with a magnetic coating and wherein the field strength of the varying magnetic field is at least five mTesla.
- 12. (Currently Amended) A method as claimed in claim [[1]]2, wherein the varying magnetic field has a power of at least 500 W and is applied in intermittent pulses such that the average power input is less than 500 W.
- 13. (Currently Amended) A method according to claim [[1]]2, wherein the varying magnetic field is applied as one or more pulses having an amplitude reducing that decays to zero in a time sufficient to increase the distance between agglomerated particles sufficiently to prevent re-agglomeration.
- 14. (Currently Amended) A method according to claim [[1]]2, wherein the magnetic particles are in a liquid medium in the examination area and the frequency of the varying magnetic field is chosen in view of the viscosity of said liquid medium.
- 15. (Original) A method according to claim 14, wherein the medium surrounding the magnetic particles is blood and the frequency of the varying magnetic field is between 0.7 and 1.3 MHz.

- 16. (Currently Amended) A method according to claim 2, <u>further comprising</u> <u>administering the magnetic particles to the examination area, wherein the varying magnetic field is applied to the magnetic particles shortly</u> before administering the magnetic particles to the examination area.
- 17. (Currently Amended) A method according to claim 2, <u>further comprising</u> administering the magnetic particles to the examination area, wherein the magnetic particles are administered to the examination area in an agglomerated state and wherein in only a part of the examination area the <u>magnetic particles in only a part of the examination area are de-agglomerated by exposing only said part of the examination area to the varying magnetic field.</u>
- 18. (Currently Amended) A method according to claim 2, wherein the frequency of the varying magnetic field is elose to between 0.8 to 1.2 times the frequency of the imaging magnetic field and wherein the exposure to the imaging magnetic field alternates are alternately applied to the examination area.

## 19. (Canceled)

- 20. (Currently Amended) A method as claimed in claim [[1]]2, eharacterized in that wherein the magnetic particle is a multi or mono-domain particle that can be reverse magnetized by at least one of Neel rotation and/or that the reverse magnetization is caused by and Brownian rotation.
- 21. (Currently Amended) A method as claimed in claim [[1]]2, eharacterized in thetwherein the magnetic particle is a hard or soft magnetic multi-domain particle.

- 22. (Currently Amended) An apparatus to determine the spatial distribution of magnetic particles in an area of examination in of an object, of examination the apparatus comprising:
- a) means to generate a magnetic field with a spatial distribution of the magnetic field strength such that the area of examination consists of a first sub-area with lower magnetic field strength and a second sub-area with a higher magnetic field strength,
- b) means to change the spatial location of both sub-areas in the area of examination so that the magnetization of the particles changes locally,
- c) means for the acquisition of signals that depend on the magnetization in the area of examination influenced by this change,
- d) means for the evaluation of said signals to obtain information about determine the spatial distribution of the signals magnetic particles in the area of examination; and
- e) means to impose in the area of examination, more particularly, in at least parts of the first sub-area with lower magnetic field strengths, a varying magnetic field at least some of the time, more particularly periodically or continuously.

23-24. (Cancelled)